

### III. CLAIMS

1-9. Cancelled

10. (Withdrawn) A method according to claim 9, wherein the fibrin matrix is used in an angiogenesis test.

11-13. Cancelled

14. (Withdrawn) A pharmaceutical composition, comprising fibrinogen and a pharmaceutically acceptable carrier, wherein the fibrinogen consists of a selected fibrinogen variant or a fibrinogen enriched or depleted in a fibrinogen variant.

15. (Withdrawn) A pharmaceutical composition according to claim 14, wherein the fibrinogen consists of HMW fibrinogen or of a mixture of fibrinogen variants enriched in HMW fibrinogen or depleted in LMW en/of LMW' fibrinogen.

16. (Withdrawn) A pharmaceutical composition according to claim 15, which is suitable for promoting wound healing, inhibiting or preventing cicatrization or treating burns.

17. (Withdrawn) A pharmaceutical composition according to claim 14, wherein the fibrinogen consists of LMW fibrinogen or of a mixture of fibrinogen variants enriched in LMW fibrinogen or depleted in HMW fibrinogen.

18. (Withdrawn) A pharmaceutical composition according to claim 14, wherein the fibrinogen consists of LMW' fibrinogen or of a mixture of fibrinogen variants enriched in LMW' fibrinogen or depleted in HMW fibrinogen.

19. (Withdrawn) A pharmaceutical composition according to claim 17, which is suitable for inhibiting or preventing tumor growth or adhesions.

20. (Withdrawn) A test kit, comprising components for the formation of a fibrin matrix, including fibrinogen, wherein the fibrinogen consists of a selected fibrinogen variant or a fibrinogen enriched or depleted in a selected fibrinogen variant.

21. (Withdrawn) A test kit according to claim 20, wherein the fibrinogen consists of HMW fibrinogen or of a mixture of fibrinogen variants enriched in HMW fibrinogen or depleted in LMW and/or LMW' fibrinogen.

22. (Withdrawn) A test kit according to claim 20, also comprising an enzyme suitable for forming fibrin from fibrinogen, such as thrombin, and optionally factor XIIIa and/or  $\text{CaCl}_2$ .

23. (Withdrawn) A test kit according to claim 20, also comprising components for effecting angiogenesis.

24. (Withdrawn) A test kit according to claim 23, comprising as components for effecting angiogenesis one or more angiogenic growth factors, such as fibroblast growth factor-2 (FGF-2) or vascular endothelial growth factor (VEGF), and/or tumor necrosis factor alpha (TNF- $\alpha$ ), and/or cells, such as human endothelial cells.

25-40. Cancelled

41. (New) A method for modifying the angiogenesis properties of a fibrin matrix comprising the steps of

a. selecting a composition selected from the group essentially consisting of:

i) a composition comprising fibrinogen, wherein the fibrinogen has an HMW content of at least 80% (w/w) of the total fibrinogen amount;

ii) a composition comprising fibrinogen, wherein the fibrinogen has an HMW content of less than 60% (w/w) of the total fibrinogen amount;

iii) a composition comprising fibrinogen, wherein the fibrinogen has an LMW content of at least 40% (w/w) of the total fibrinogen amount; and

iv) a composition comprising fibrinogen, wherein the fibrinogen has an LMW content of less than 20% (w/w) of the total fibrinogen amount; and

b. forming a fibrin matrix from said composition.

42. (New) A method according to claim 41, wherein a fibrin matrix is formed which leads to accelerated angiogenesis.

43. (New) A method according to claim 41, wherein a fibrin matrix is formed which leads to decelerated angiogenesis.

44. (New) A method for modifying angiogenesis in a patient, comprising administering to such patient a fibrin matrix modified by a process comprising the steps of:

a. selecting a composition selected from the group essentially consisting of:

i) a pharmaceutical composition comprising fibrinogen and a pharmaceutically acceptable carrier, wherein the fibrinogen has an HMW content of at least 80% (w/w) of the total

fibrinogen amount;

ii) a pharmaceutical composition comprising fibrinogen and a pharmaceutically acceptable carrier, wherein the fibrinogen has an HMW content of less than 60% (w/w) of the total fibrinogen amount;

iii) a pharmaceutical composition comprising fibrinogen and a pharmaceutically acceptable carrier, wherein the fibrinogen has a LMW content of at least 40% (w/w) of the total fibrinogen amount; and

iv) a pharmaceutical composition comprising fibrinogen and a pharmaceutically acceptable carrier, wherein the fibrinogen has a LMW content of less than 20% (w/w) of the total fibrinogen amount; and

b. forming a fibrin matrix from said composition.

45. (New) A method according to claim 44, wherein the fibrin matrix is formed *in vitro*, where the fibrin matrix is formed by enzymatic conversion and optionally factor XIIIa and  $\text{CaCl}_2$ , into fibrin.

46. (New) A method according to claim 44, wherein the fibrin matrix is formed *in vivo*, by applying the fibrinogen composition as defined in step (b), optionally in combination with an enzyme and optionally factor XIIIa and  $\text{CaCl}_2$ , in a place where the formation of the fibrin matrix takes place.